

UNIVERSITY OF QUEENSLAND

Computer Centre

NEWSLETTER - SPECIAL EDITION

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NEW FORTRAN OPERATING SYSTEM

On MONDAY 27 SEPTEMBER, version 30.2 of the FORTRAN operating system is to be released. The changes made in this version are primarily to correct errors reported following the initial release of the previous version, but a number of other improvements have been made, principally in the area of input/output control.

1. IMPROVEMENT AND RATIONALIZATION OF INPUT/OUTPUT ERROR REPORTING

This affects the reporting of most input/output errors. For reference, the previous message as given in Vol 4 Nos 8 and 9 p 117 of the Bulletin, is quoted in parentheses.

If formatted input/output was in progress, each of these messages will be followed by the format statement (or the first 72 characters in the case of a large format statement). If it was found that the memory locations specified as the format statement did not contain a legitimate character string, then the message

FORMAT AT adr IS NOT A VALID CHARACTER STRING  
will be output. Following this message, a line of the form  
LAST FORTRAN I/O AT USER LOC adr  
will be output.

DEVICE dev NOT AVAILABLE - LOGICAL UNIT n

(DEVICE dev: NOT AVAILABLE)

The operating system tried to initialize a device which either does not exist or has been assigned to another job.

END OF FILE, FILE name/ext DEVICE dev LOGICAL UNIT n

(END OF FILE ON dev)

A premature end-of-file has occurred on an input device.

Note that in this and subsequent messages, a filename will be quoted only if it is relevant to the particular device. Further, it is not possible to give the extension part of the file name in all circumstances and in such cases the /ext will be omitted.

CANNOT FIND FILE name/ext DEVICE dev LOGICAL UNIT n  
(FILE NAME filename NOT ON DEVICE dev)

A non-permitted sequence of operations was attempted on the device.

?CANNOT FIND FOR302/SHR

The sharable Fortran operating system segment is not capable of being accessed.

?FOR302/SHR DOES NOT CORRESPOND TO IMP40

There is a problem in the organization of the System directory.

## 2. PRINTER CONTROL CHARACTERS

Additional characters can now be used for control of printer positioning on output. Previously only the characters +, blank, Ø, and 1 were correctly acted upon. The following characters now have the action indicated:

+	do not advance
1	preslew to VFU channel 1 - Top-of-form
2	preslew to VFU channel 2 - Bottom-of-form
3	preslew to VFU channel 3 - Half of form
4	preslew to VFU channel 4 - Third of form
5	preslew to VFU channel 5 - Sixth of form
6	preslew to VFU channel 6 - Single spacing over the whole page
7	preslew to VFU channel 7 - Top-of-page
-	preslew 3 lines*
Ø	preslew 2 lines*
blank	preslew 1 line*
(or any other character)	

\* These three operations are obtained by repeated slewing to VFU Channel 8, continuing onto the next form if necessary.

The VFU (Vertical Format Unit) is controlled by a special tape, which has positions corresponding to each line in a page. As normally setup, a PAGE is assumed to have 66 lines. Within a page, a FORM of 60 lines is centrally located. Within the page there will thus be a margin of 3 lines, a form of 60 lines, and a further margin of 3 lines. The VFU loop or tape has the following punchings:

Channel 1	-	line 4
Channel 2	-	line 61
Channel 3	-	lines 4 and 34
Channel 4	-	lines 4, 24 and 44
Channel 5	-	lines 4, 14, 24, 34, 44 and 54
Channel 6	-	all lines throughout the page
Channel 7	-	line 1
Channel 8	-	all lines between 4 and 63 (this channel is used for the -, Ø, and blank printer control characters).

## 3. PLOTTING ROUTINES

Several changes have been made to the plotting routines, mainly to improve the handling of error conditions. No changes to functional programs should be necessary.